

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
13 October 2005 (13.10.2005)

PCT

(10) International Publication Number
WO 2005/096440 A1

(51) International Patent Classification⁷: H01L 39/24

(21) International Application Number: PCT/IB2004/001013

(22) International Filing Date: 31 March 2004 (31.03.2004)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH [IN/IN]; Rafi Marg New Delhi 110 001 (IN).

(72) Inventors; and

(75) Inventors/Applicants (for US only): EKBOTE, Shrikant [IN/IN]; National Physical Laboratory, K.S. Krishnan Marg, New Delhi 110 012 (IN). PADAM, Gursharan, Kaur [IN/IN]; National Physical Laboratory, K.S. Krishnan Marg, New Delhi 110 012 (IN). ARORA, Narendra, Kumar [IN/IN]; National Physical Laboratory, K.S. Krishnan Marg, New Delhi 110 012 (IN). SHARMA, Mukul [IN/IN]; National Physical Laboratory, K.S. Krishnan Marg, New Delhi 110 012 (IN). SETHI, Ramesh [IN/IN];

National Physical Laboratory, K.S. Krishnan Marg, New Delhi 110 012 (IN). BANERJEE, Mrinal, Kanti [IN/IN]; National Physical Laboratory, K.S. Krishnan Marg, New Delhi 110 012 (IN).

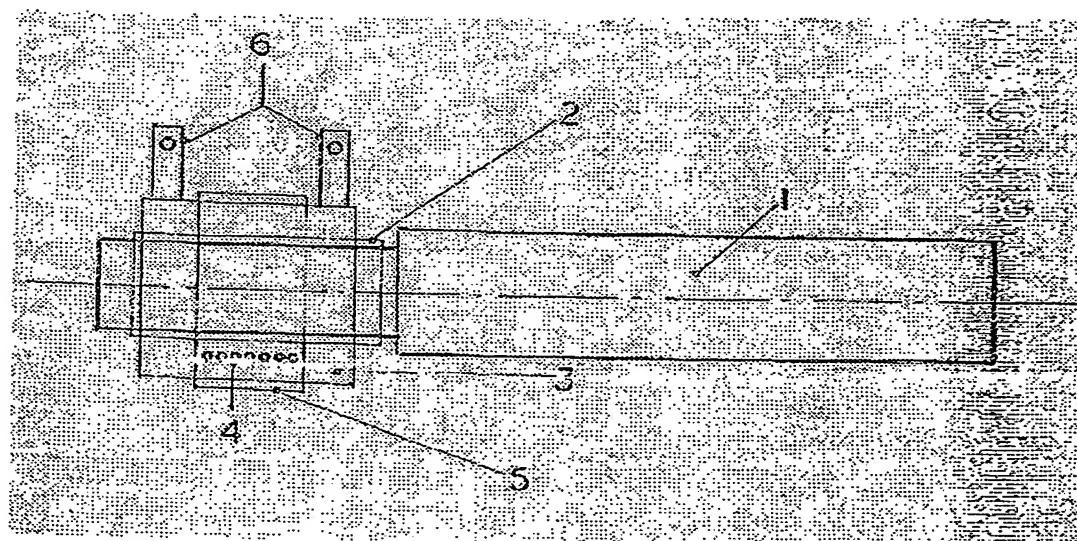
(74) Agents: SUBRAMANAM, Hariharan, , et al.; Subramaniam, Nataraj & Associates, E-556, Greater Kailash-II, New Delhi, 110-048 (IN).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CI, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, IU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,

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(54) Title: PROCESS FOR THE PREPARATION OF LOW CONTACT RESISTANCE CONTACT ON A HIGH TRANSITION TEMPERATURE SUPERCONDUCTORS



WO 2005/096440 A1

(57) Abstract: Disclosed is a three layer process for making contact points to a high transition temperature superconductor (HTSC), particularly to $(\text{Bi},\text{Pb})_2 \text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{6+\delta}$, with and without silver in the superconductor. The contact structure is a three layer configuration with a perforated silver foil (3) sandwiched between two metal spray gun deposited silver layers (2,5) and subsequent heat treatment in air. The contact has been made on tubes and rods (1). The silver contacts are capable of carrying a continuous current of 200 Amps without adding any substantial heat load to the cryogen used to cool the HTSC. The contact resistance at 4.2 K is in the range of 1.5×10^{-8} to $8.5 \times 10^{-9} \Omega$ in zero applied field.